

TONGUE RIVER DAM

Fact Sheet

PROJECT DESCRIPTION

- ◆ Located on the Tongue River in Big Horn County, 5 miles north of Decker.
- ◆ Owned by DNRC & managed by the Tongue River Water Users Association since 1938.
- ◆ Project consists of:
 - ◆ Zoned Earthfill Dam, 93 feet high, 1,824 feet long
 - ◆ Uncontrolled, 150 foot-wide, 560 foot-long concrete labyrinth weir principle spillway. Emergency spillway consists of roller compacted concrete with conventional concrete encasement stair step chute with an ogee crest, 650 feet-wide.
 - ◆ 16-foot horseshoe-shaped concrete auxiliary outlet tunnel; downstream and upstream wet wells with a 4.5 foot by 7 foot fixed wheel emergency gate and cast iron operating sluice gate.
- ◆ Original construction completed in 1940 by the State Water Conservation Board.
- ◆ Stores 79,071 acre-feet at normal full pool, covering 3,700 surface acres.
- ◆ A very popular recreation site, with Tongue River State Park, managed under lease by the MT Dept. of Fish, Wildlife and Parks, located on the west shore of the reservoir.
- ◆ Provides a portion of the Northern Cheyenne R=Tribe's federally reserved water right.
- ◆ The dam is a "high hazard" structure, which means that its failure could cause loss of life. Farms and ranches, roads, bridges, and utilities are located in the flood plain.

PROJECT DEFICIENCIES AND REHABILITATION

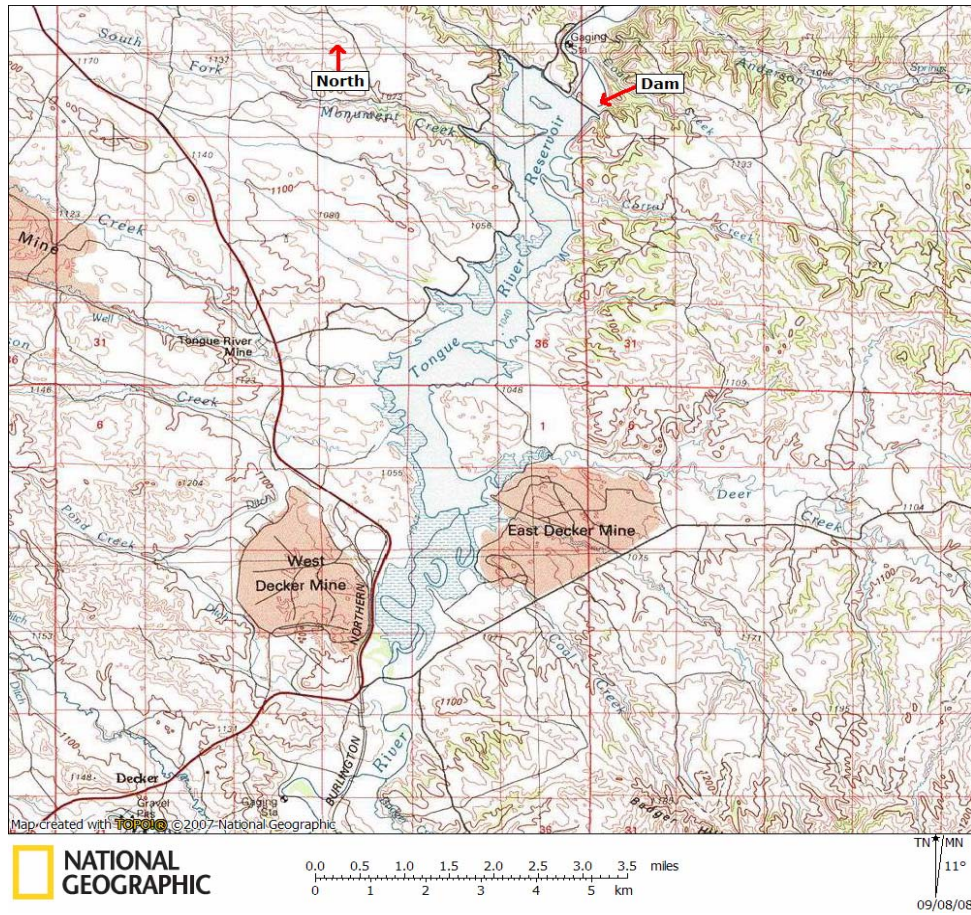
From 1996 to 1999 the DNRC completed a major rehabilitation of the dam. The dam, spillways and outlet works are in good condition and meet or exceed existing dam safety standards. The rehabilitation included:

- ◆ Raising the dam crest an additional 4-feet, providing up to an additional 20,000 acre-feet of storage.
- ◆ Construction of a new primary outlet tunnel and emergency spillway.
- ◆ Replacing the principle spillway.
- ◆ Improvements to the drain system.
- ◆ Improvement to access and maintenance roads.

Rehabilitation cost (1999): \$52,000,000

The rehabilitation costs were shared between the DNRC, U.S. Bureau of Reclamation and Northern Cheyenne Tribe.

Repairs are continuing on cracks that appeared in the emergency spillway concrete steps. Estimated cost of the crack repairs is \$500,000.



Tongue River Dam